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Perforated Form-Fill-Seal (FFS) Bag

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**Claims**

1. Gusseted bag or flat bag (200,201,212,214,217),
  - which is produced and filled by an FFS machine and
  - which comprises a tear-open perforation (207,208,216) at least in the area of one of the corners of the bag,  
said gusseted bag or flat bag being **characterized in that**  
the bag comprises a cross-weld seal (206) in the area of at least one corner.
  
2. Gusseted bag or flat bag according to claim 1,  
**characterized in that**
  - the forming of the tear-open perforation (207,208,216) in the area of at least one corner is changed in such a way
  - that the perforation (207) in the interspace between the edge (209) of the bag (200,212,214,217) and the corner weld seal (206) is provided in a different manner as compared to the perforation (208) between the corner weld seal (206) and the centerline (M) of the bag (200).

3. Gusseted bag or flat bag according to claim 2,  
**characterized in that**  
the length or the periphery of the perforation incisions (207) in the interspace between the edge of the bag (200) and the corner weld seal (206) is larger than the length of the perforation incisions (208) between the corner weld seal (206) and the centerline (M) of the bag (200,214,217).
4. Gusseted bag or flat bag according to any of the preceding claims,  
**characterized in that**  
the length or the periphery of at least the perforation cuts (208) between the corner weld seal (206) and the centerline (M) of the bag (200,214,217) is smaller than the periphery of the grains of the fill goods of the bag (200,214,217).
5. Gusseted bag or flat bag according to any of the preceding claims,  
**characterized in that**  
the length or the periphery of at least the perforation cuts (208) between the corner weld seal (206) and the centerline (M) of the bag (200,214,217) is smaller than the diameter of the grains of the fill goods of the bag (200).
6. Gusseted bag or flat bag according to any of the preceding claims,  
**characterized in that**  
the corner weld seal (206) comprises passages (229).
7. Gusseted bag or flat bag according to claim 2,  
**characterized in that**  
the tear-open perforation (207,208,216) in the area of at least one corner is present only in the interspace between the bag edge (209) and the corner weld seal (206).

8. Gusseted bag or flat bag according to any of the preceding claims,  
**characterized in that**  
both the corners of the top (211) and/or of the bottom (210) are equipped with corner areas according to any of the preceding claims.
9. Gusseted bag or flat bag according to any of the preceding claims,  
**characterized in that**  
the perforation cuts (207,208,216) at least in the area of one corner are arranged in one line.
10. Method for the production and filling of a gusseted bag with the help of an FFS machine,  
in which the gusseted bag (200,201,212,214,217) is provided with a tear-open perforation,  
said method being **characterized in that**
  - the bag (200,201,212,214,217) is provided with a corner weld seal (206).
11. Method according to the preceding claim  
**characterized in that**  
the tear-open perforation (207,208,216) is inserted during the processing in the FFS machine.
12. FFS machine for the production and filling of gusseted bags or flat bags (200,201,212,214,217),  
said FFS machine being **characterized in**  
means for applying a tear-open perforation (220,240),  
wherein components of the gusseted bags (200,201,212,214,217) can be provided with a tear-open perforation (220,240) using said means, while they pass through the FFS machine.

13. FFS machine according to the preceding claim,

**characterized in that**

the means for applying the tear-open perforation (220,240) are provided, wherein the bags (200,201,212,214,217) can be provided using said means with perforation cuts (207,208,216), of which the length or periphery varies over the width of the bags (200,201,212,214,217).

14. FFS machine according to the preceding claim,

**characterized in that**

the means for applying the tear-open perforation comprise perforation knives (252,253) or punches, whose active cutting surface or punching surface varies over the width of the bags (200,201,212,214,217) to be processed.

15. FFS machine according to the preceding claim

**characterized in that**

a perforation knife (252,253) is provided, in order to insert only one perforation cut for each sack.